

disconnecting the coils from the terminals when the unit is slipped into place or removed.

Thus it will be seen that I have provided a novel form of receiver having many improved features which co-operate to form a receiver which is very sensitive to minute currents, thus making it especially useful for wireless work.

Having described my invention, I claim:

1. In a telephone receiver, a cup-shaped housing formed of insulating material and having a plurality of permanent magnet elements embedded therein and extending from near the open end of the housing downwardly toward the base and inwardly along the base toward the center, said elements having similar magnetic poles adjacent the axis of the housing.

2. In a telephone receiver, a cup-shaped housing of insulating material having on the inside thereof permanent magnet elements extending down from near the open end of the housing to the base and inwardly along the base toward the center thereof in curved lines to provide additional length, a dia-

phragm closing the open end of the housing, and a coil having a core projecting upwardly from the base toward the central part of the diaphragm.

3. A telephone receiver comprising a cup-like housing containing a coil and a core, said housing having a plurality of permanent magnet elements extending from the open end to the base and across the base to adjacent the center, said magnet elements having similar magnetic poles adjacent the open end and similar magnetic poles adjacent the center of the base, a ring of magnetic material joining the ends of said elements at the open end of the housing, a flexible metal diaphragm closing the open end of the housing and engaging said ring, said diaphragm tapering from the center toward the periphery and having substantially the same flux carrying capacity from the central part opposite the core to the peripheral part adjacent the edge of the housing.

In testimony whereof, I hereunto affix my signature.

JOSEPH A. WILLIAMS.